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EXAMINER

NGUYEN, JIMMY H

ART UNIT PAPER NUMBER

2673

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/628,503

Applicant(s)

SONG, MYOUNG JUN

Examiner

Jimmy H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 6,7,20,21 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8,12-15,17-19,22-24 and 26 is/are rejected.
- 7) ☒ Claim(s) 9-11 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4, 6, 8
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is made in response to applicant's RESPONSE TO ELECTION REQUIREMENT AND AMENDMENT, filed 06/20/2002 (entered into the file wrapper as Paper No. 7).

2. Applicant's election with traverse of Species I in Paper No. 7 is acknowledged. The traversal is on the ground(s) that "the subject matter of each of the designated inventions is sufficiently related that a through search for the subject matter of each of the designated inventions would encompass a search for the subject matter of the remaining designated inventions. Thus, it is respectfully submitted that the search and examination of the entire application could be made without serious burden", page 1, last paragraph. This is not found persuasive because inventions corresponding to species I and species II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions,

(i) there is no disclosure of relationship between species because the invention corresponding to species I requires that a main body, such as a computer, must have a capable of providing a display information relating to the video signal display type and a monitor must have a capable of detecting a display type of the video signal in accordance with the display information (see any of independent claims 1-5, 8, 12, 14, 17 and 26). In contrast to species I, the invention corresponding to species II requires that a monitor must have a capable of providing a display information relating to a video type of a video signal that can be displayed on the monitor and a main body must have a capable of detecting a display type of the video signal in

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accordance with the display information and converting video signal to match the video type outputted from the monitor (see any of independent claims 6, 20 and 25). Accordingly, the monitor of species I can't work with the computer of species II, and vice versa, to obtain the object of the invention disclosed in the pending application; and

(ii) a different field of search, i.e., it is necessary to search for one of the distinct subjects in places where no pertinent art to the other subject exists. In the instant case, as discussed in (i) above, the search for the distinct monitor and computer in species I is different from the search for the distinct monitor and computer in species II.

Furthermore, if applicant believes that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 6, 7, 20, 21 and 25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.

Accordingly, claims 1-5, 8-19, 22-24 and 26 are considered as follows:

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 03/12/02 (entered as Paper No. 3), 04/17/02 (entered as Paper No. 4), 06/07/02 (entered as Paper No. 6) and 06/20/02 (entered as Paper No. 8) are considered by the examiner.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed features, “information relative to a display type of a video signal embedded in a vertical sync signal” as recited in claim 5, and “embedding the divided display type information into the vertical sync signal” as recited in claim 17, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claim 8 is objected to because of the following informalities: line 2, “for” should be changed to -- from -- due to a typo. Appropriate correction is required.

7. Claims 15 and 16 are objected to under 37 CFR 1.75(a) because although claims 14-16 meet the requirement 112/2d, i.e., the metes and bounds are determinable, however, the features, “the main body” (see claim 15) and “a vertical sync signal” (see claim 16), should be recited in independent claim 14, so as to make a connection between the mentioned features with the method as claimed in independent claim 14. It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims, to take into consideration these editorial situations and make changes as necessary (preferably see claim 8).

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8. Claim 26 is objected to because of the following informalities: line 3, "clock signals" should be changed to -- clock signal --, i.e., only one clock signal, so as to be consistent with the disclosure (see fig. 3 or 4). Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 5 and 17-19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As per claims above, the application, especially fig. 6 and the corresponding description, pages 17-19, discloses the divided display type information embedded into horizontal sync signal, R video signal, G video signal and/or B video signal, and the vertical sync signal including the clock pulse for recognizing the display type information. Accordingly, the claimed features, "information relative to a display type of a video signal embedded in a vertical sync signal" recited in independent claim 5, and "embedding the divided display type information into the vertical sync signal" recited in independent claim 17, were not described in the specification. Therefore, these claims are rejected for the reason as set forth above.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

12. Claims 1-4, 8, 12, 14, 15, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Arai et al. (USPN: 5,457,473).

As per claims above, as noting in figs 1 and 3, Arai et al. disclose an apparatus and an associate method for interfacing video information in a computer system, the apparatus comprising a computer body (1a) (corresponding to the claimed main body) for outputting a video signal through video signal line (R, G, B'), a horizontal sync signal (Hs), a vertical sync signal (Vs) and a serial control signal (Sc) having information relating to a display size and a display position of various input video signals (see col. 1, lines 5-20, col. 2, lines 40-42) (corresponding to the claimed information relating to the display type of the corresponding video signal), and a display unit (1b) for detecting the display type of the video signal and displaying the video signal in accordance with the detected display type (corresponding to the claimed monitor) (see col. 4, line 57 through col. 5, line 15). Arai et al. further teach the control signal (Sc) embedded into a video signal R, G or B or a horizontal sync signal (Hs) or a vertical sync signal (Vs) (see figs. 1 and 3, abstract), or carried through a bi-directional communication line (see fig. 7, col. 8, lines 38-53). The elements and the steps in the claims are read in the reference.

13. Claims 1-4, 8, 14, 15, 17, 18, 22, 23 and 26 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's Admitted Prior Art, hereinafter AAPA.

As per claims 1-4, 8, 14, 17, 23 and 26, as noting in figs. 1-2 and the corresponding description, pages 1-4, AAPA discloses an apparatus and an associate method for interfacing

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video information in a computer system, the apparatus comprising a main body (1), such as a personal computer, (corresponding to the claimed main body) for outputting a video signal through video signal line (R, G, B), a horizontal sync signal (H-sync) through a communication line, a vertical sync signal (V-sync) through a communication line, a serial data (SDA) and a serial clock (SCL) through a display data channel (DDC), and the horizontal and vertical sync signals' frequency information relating to the display type of the corresponding video signal (corresponding to the claimed information relating to the display type of the video signal) (especially see, page 1, lines 16-18. This also implies the information relating to the display type of the video signal is embedded in horizontal and vertical sync signals); and a monitor (2) for detecting the display type of the video signal and displaying the video signal in accordance with the detected display type (corresponding to the claimed monitor) (especially, page 1, line 16 through page 2, line 15). The elements and the steps in the claims are read in the reference.

As per claims 15 and 18, as mentioned above, since the frequency information of vertical sync signal, i.e., the claimed display type information, is embedded in the vertical sync signal, the display type information is inherently synchronized with the vertical sync signal by the main body.

As per claim 22, AAPA further teach the display information comprising a number of dots for a horizontal period, a number of backporches for the horizontal period, a number of horizontal lines for a vertical period and a number of horizontal lines of a backporch for the vertical period (page 2, line 16 through page 3, line 2).

Claim Rejections - 35 USC § 103

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14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. as applied to claim 12 above.

As per claim 13, as noting in figs. 2 and 3 and the corresponding description, one skilled in the art would recognize that Arai et al. disclose the control data C_D embedded in the B video signal during the high level period T_H of the V gate pulse (P_V), which is synchronized by a vertical sync signal (V_s). In other words, the control data, i.e., the claimed display type information is synchronized with the vertical sync signal. This claim is therefore rejected for the reason as set forth above.

Allowable Subject Matter

16. Claims 9-11 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter: the claimed invention is directed to an apparatus and a method for interfacing video information in a computer system. The dependent claim 9 identifies the uniquely distinct feature "the display type information includes a recognition code for designating a kind of the corresponding display type information, and data corresponding to the recognition code", and the dependent claim 16 identifies the uniquely distinct feature "a vertical sync signal comprises a clock pulse for

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recognizing the display type information". The closest art, as mentioned above, Arai et al.

disclose that the display type information is synchronized with the vertical sync signal and may be embedded in the vertical sync signal, either singularly or in combination, fails to anticipate or render the above underlined limitations obvious.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references, Kikinis (USPN: 5,532,719, see figs. 1-2 and abstract) and Takasu et al. (USPN: 6,377,251 B1), both disclose related apparatus and associate method for interfacing video information in a computer system, the apparatus comprising a computer for outputting a video signal, a horizontal sync signal, a vertical sync signal and an information relating to a display type of the video signal; and a display for detecting the display type of the video signal and displaying the video signal in accordance with the detected display type.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

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(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.



JHN
August 23, 2002

Jimmy H. Nguyen
Examiner
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